

ENVIRONMENTAL SCAN

SUMMARY REPORT

Utilizing Technology to Deliver Public Health Messaging
to Enhance Coordinated Chronic Disease Prevention and Health Promotion:
*An Environmental Scan of Community, School, Tribal, Worksite,
and Healthcare Sectors in South Dakota*

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OCTOBER 2018



Chronic disease prevention and health promotion are integral in the battle against chronic disease and associated risk factors. The leading causes of death among adults in South Dakota are cancer and heart disease and the leading cause of death in children 1-19 years of age in South Dakota is accidents (unintentional injuries).¹ Evidence-based research highlights the value of media and health communication to address chronic diseases in priority populations and settings. With the everchanging landscape of technology available and use among a cross section of the United States, tribal, worksite, community, school, and healthcare sectors rely upon various types of media to deliver and access public health information. Social media, patient portals, e-mail, phone applications, and websites are platforms growing in use to deliver information focused health education and health promotion. However, barriers including cost, geographic, organizational policies, capacity, broadband access, reach, and even age continue to reduce the use of technology to deliver health messaging, especially in rural areas. Thus, it is necessary to deliver public health information in various formats to reach diverse populations and support coordinated chronic disease prevention and health promotion.

PROJECT OVERVIEW

To understand how technology is used to deliver public health information an environmental scan process was implemented to gain a better understanding of how public health messaging is delivered using technology in tribal, community, worksites, school, and healthcare sectors to enhance coordinated chronic disease prevention and health promotion across SD. Specifically, the scan assessed who is receiving messaging, barriers to delivery, and successes to addressing coordinated chronic disease prevention and health promotion. This process was informed by literature and professionals from healthcare, tribal, school, community, and worksite sectors. The process occurred through development, implementation and evaluation of an environmental scan outlined in Figure 1 below.

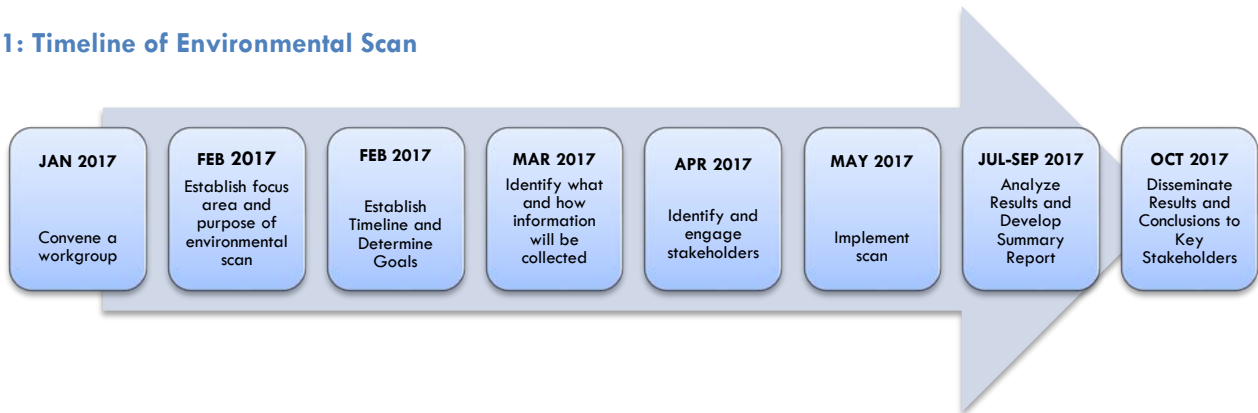
The scan was guided by the 2012-2017 South Dakota Chronic Disease State Plan, under strategic direction of the National Prevention Strategy, “Healthy and Safe Environments”, the State Plan *Objective 1.2: By 2017, conduct an environmental scan and then develop and implement five sector-specific plans for the areas of communities, schools, worksites, tribes and healthcare in which to deliver public health messaging.* This objective supported achieving Goal 1 of the State Plan: *Utilize technology to enhance coordinated chronic disease prevention and health promotion.*¹⁰

Workgroup members established the following goal and priorities to support Goal 1 and inform the process.

- Goal: Utilize technology to enhance coordinated chronic disease prevention and health promotion.

- **Priority:** To provide recommendations regarding how technology is utilized and available to enhance coordinated chronic disease prevention and health promotion in communities, schools, tribes, worksite, and healthcare sectors in South Dakota. Two sub priorities were established to ensure:
 1. How technology is used for public health messaging in communities, schools, tribes, worksites, and healthcare sectors to enhance coordinated chronic disease prevention and health promotion.
 2. How technology is impacting the mission to prevent and control chronic disease in South Dakota.

Figure 1: Timeline of Environmental Scan



METHODS

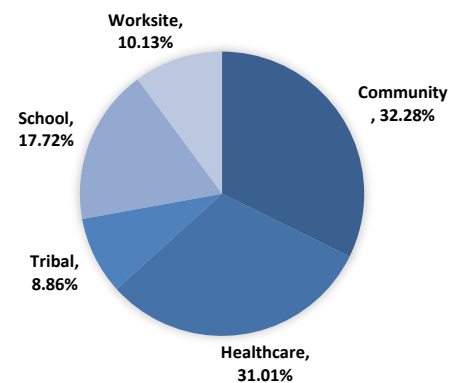
An electronic survey was disseminated to a convenience sample of representatives of the healthcare, worksite, school, community, and tribal sectors by workgroup members and via the South Dakota Department of Health Chronic Disease Partners list serve to elicit feedback. Survey design and content was informed by input from workgroup members and modeled after valid questions utilized in an environmental scan project conducted by the McMaster Institute of Environment & Health² to conduct a systematic review of the media and social media in public health messages, as well as input from workgroup members. Survey questions assessed respondents’ feedback on four categories, demographics (e.g. sector representation), patterns of technology used to deliver public health messaging, the feasibility of using technology to deliver public health messaging, and any additional information that can help inform utilizing technology to deliver public health messaging. Survey results were analyzed for key themes within sectors and across all sectors.

SECTOR FINDINGS

DEMOGRAPHICS

Survey respondents were comprised of a convenience sample due to the feasibility to reach a broad sector of stakeholders to complete the survey, thus is not representative of each sector. There was a total of 158 respondents from community, healthcare, tribal, school and worksite sectors (Figure 2). Respondent job roles included a broad section of South Dakota professionals, including Executive Director, CEO, Nutrition Director, Healthcare Professional, Public Health Practitioner or Program Coordinator. [Refer to the Appendix for individual sector reports.](#)

Figure 2: Respondents by Sector (N = 158)



TECHNOLOGY USE

E-mail, websites, and social media are the top three utilized technologies to deliver public health messaging. However, some sectors do not rely upon technology to deliver public health messaging, instead utilizing face-to-face interactions to deliver messaging to reach populations without access to technology, including rural, underserved, and aging populations. the internet. Families and the general public were targeted for dissemination of public health messaging, with physical activity and nutrition the primary focus of the messaging. Oral health and substance abuse were the least addressed topics. Overall, public health messaging is focused on health education and health promotion and prevention. Moreover, measuring the effectiveness of dissemination of public health messaging is largely unmeasured due to lack of awareness, knowledge how to, or organizational priority, however, in sectors that do measure effectiveness, social media engagement (e.g. likes, shares, followers, etc.) and page views are primarily used.

FEASIBILITY OF TECHNOLOGY USE

Individual staff persons are often assigned to deliver public health messaging across all sectors, while a communications team is often assigned within the healthcare sector. In addition, administration/marketing staff also disseminate messaging in many of the sectors. However, as with technology use, face-to-face interactions (e.g. talking circles, health education, case management) are also utilized to deliver public health messaging. In addition, staff role largely includes posting of public health messaging, followed by developing content. Content that is delivered by staff, is often determined in advance, as well as shared from other sources. Tools utilized to manage delivery of public health messaging via social media are not heavily used, with Tweetdeck, Facebook, and Constant Contact indicated by some, however, many sectors are unaware of what is being utilized, if any. Barriers to using technology to deliver public health messaging center largely on budget constraints, however, a lack of staff training on technology, lack of staff and access to the internet are also barriers. Organizational policies are also a barrier in many of the sectors to effectively deliver appropriate public health messaging.

ADDITIONAL INFORMATION

Chronic disease challenges to address using technology to deliver public health messaging include obesity, diabetes, and heart disease. Cancer prevention, tobacco use and policy, substance use are also challenging to address. Challenges are fostered by the ability to reach and impact populations, as well as disparities, rural populations, and the overall ability to motivate behavior change through technology. Sectors have also experienced successes using technology to deliver public health messaging, such as a worksite tobacco cessation program or Text for Baby. In addition, social media platforms, as well as other media platforms (e.g. webinar, newsletters, etc.) are utilized to deliver public health messaging, specifically to rural populations hard to convene in person. However, face-to-face communication a necessary outlet for public health information due to challenges with access to technology.

LIMITATIONS

The survey data presents some valuable and interesting findings that can be utilized to address gaps and strengths across tribal, healthcare, school, community, and worksite sectors regarding using technology to deliver public health messaging. However, some limitations to the findings include the use of a convenience sample to collect information, thus the findings are not representative of the sectors across South Dakota but provide insight to technology used to deliver public health messaging. The design of some questions may not have elicited responses due to confusion in how they were worded. In addition, survey dissemination was only done throughout e-mail to sector representatives and workgroup members, thus the survey may have not reached the intended populations.

CONCLUSIONS & RECOMMENDATIONS

CONCLUSIONS

The environmental scan highlighted strengths and gaps across the community, healthcare, tribal, worksite, and school sectors regarding how technology is utilized to deliver public health messaging. Overall respondents used some type of technology to deliver public health messaging, with some methods used more than others. While technology is an important factor in enhancing coordinated chronic disease prevention and health promotion, it is important to remember the value and need of face-to-face health communication, as well as the challenges a frontier and rural state such as SD has with access to technology. The technology most utilized by respondents include e-mail, social media, and website. Alternative technologies, such as discussion boards, podcast, and/or webinars, may not be used as much due to lack of training, lack in workforce capacity or access to technology. In addition, the top three barriers to utilizing technology to deliver public health messaging, including lack of staff training on technology, budget, and lack of staff, which present challenges to delivering health communication. Additional steps to evaluate use and dissemination of public health messaging via technology can help build capacity for chronic disease prevention and control.

RECOMMENDATIONS

Findings from the environmental scan underscore the need for additional approaches to strengthen the capacity of public health and healthcare professionals working in community, tribal, healthcare, worksite, and school sectors to utilize technology to deliver public health messaging to enhance coordinated chronic disease prevention and health promotion. The following are recommendations for strategies to support public health in SD:

- **Provide Training:** The training should focus on how to use social media for public health messaging, measures professionals can use to evaluate the effectiveness of use of technology to deliver public health messaging, as well as how to develop content and identify the appropriate methods for dissemination.
- **Conduct Additional Evaluation of How Technology is Utilized to Deliver Public Health Messaging:** Additional evaluation methods, including sector specific focus groups, key informant interviews and/or surveys, might expand the learning about each sector to truly understand the gaps and strengths utilizing technology to deliver public health messaging.
- **Address Organizational Policy for Social Media Use and Marketing:** It is recommended administrative/HR departments review their organizational policy regarding media use. Specifically, regarding who can develop, disseminate, and manage content, as well as identification of social media platforms to enhance message delivery.
- **Identify Strategies to Target Aging Population Using Technology:** Identify strategies that build the capacity of older South Dakotans to access and utilize technology to enhance coordinated chronic disease prevention and control, such as providing training to older adults, educational campaigns and/or interventions that enhance learning. Collaboration with organizations who serve older South Dakotans, e.g. AARP of South Dakota, South Dakota Department of Adult Services and Aging, etc., may provide opportunities to increase the adoption of technology use to support chronic disease prevention and health promotion.
- **Enhance Strategies to Educate Sector Professionals:** Focus education on obesity prevention and associated risk factors to parents, worksite staff, and school staff is necessary to achieve the desired long-term outcomes of chronic disease prevention.

RESOURCES

Evidence-based recommendations to inform social media practice are available to build the capacity of staff within all sectors to support utilization of technology to deliver public health messaging.

- **CDC Social Media Tools, Guidelines & Best Practices:** To assist in the planning, development and implementation of social media activities, the following guidelines have been developed to provide critical information on lessons learned, best practices, clearance information and security requirements.
- **Gateway to Health Communication & Social Marketing Practice:** CDC's Gateway to Communication and Social Marketing Practice provides resources to help build your health communication or social marketing campaigns and programs.
- **Health Literacy Online:** This research-based guide will help you develop intuitive health websites and digital tools that can be easily accessed and understood by all users — including the millions of Americans who struggle to find, process, and use online health information.
- **Digital Communications:** This Digital Communications sub-site ([HHS.gov/web](https://www.hhs.gov/web)) is a resource for HHS employees and contractors who are responsible for building and maintaining the Department's digital presence.

APPENDIX

Individual sector reports included in the Appendix indicated below, highlight findings unique to each sector that support or deter utilization of technology to deliver public health messaging

- A. Community Sector Report
- B. Healthcare Sector Report
- C. Worksite Sector Report
- D. School Sector Report
- E. Tribal Sector Report

REFERENCES

¹ Office of Health Statistics, South Dakota Department of Health. (2016, October). *2015 South Dakota Vital Statistics Report: A State and County Comparison of Leading Health Indicators*. Accessed from <https://doh.sd.gov/statistics/>

² Newbold, K. Bruce & Campos, S, McMaster Institute of Environment & Health. (2011, December). *Media and Social Media in Public Health Messages: A Systematic Review*. Accessed from <https://pdfs.semanticscholar.org/31b8/3cd75cb9e381213138c15f6bc07387534bab.pdf>

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COMMUNITY



Demographics: Fifty-one respondents represented the community sector, with 83% of those who serve more than one community across SD varied in size from urban clusters to rural and frontier communities.

Patterns of Technology Use: The general public and families are the primary audiences targeted through the top three technologies utilized, e-mail, social media, and website, with the primary focus of messaging as health promotion and prevention and health education. In-person educational events and seminars are other methods used for delivering public health messaging. In addition, the leading health topics these technologies are used to address are physical activity and nutrition, diabetes, and obesity, including other areas identified, mental health and maternal and child health. Oral health is the least addressed.

Feasibility of Technology Use: The effectiveness of the technology used is measured through social media engagement (e.g. like, shared, etc.), page views, and response rates, with reach the least used measurement and some that do not measure at all. Individual staff persons and a communications teams are assigned to deliver messaging, with a few where no one is assigned. Content is largely determined in advance and shared from other sources. In addition, administration, a wellness team, or an external media contractor is also utilized by a few community sectors to deliver messages. Staff roles in delivering public health messages largely include developing content and posting messaging. Many community sector representatives do not use or do not know if tools are used to manage delivery of the messaging, however Facebook, websites, and Hootsuite were indicated by ones that do. Barriers to using technology to deliver messaging is largely budget, followed by lack of staff and lack of staff training on technology, however access to the population base is also a barrier due to poor internet access, lack of social media use, organizational policies for technology use, and staff time.

Barrier to Technology Use

“Large organization that centralizes the use of social media and other technologies. This slows the process, which creates a disconnect in social media platforms that thrive on immediacy and engagement with the audience. Program staff have no access to or ability to interact through social media with the audience.”

-Community Organization Staff

Additional Information to Inform Technology Use for Public Health Messaging: Almost half of respondents indicated that the primary areas of chronic disease challenging to address using technology, include obesity, diabetes education, tobacco use and policy, aging populations, disparate populations, as well as having the ability to reach and impact populations effectively. However, many communities have had success using technology to deliver messaging, such as Twitter chats, YouTube videos to promote wellness, or public campaigns promoted through Facebook. Moreover, internet access is often a challenge to utilizing technology to deliver messaging, especially in rural areas, however Facebook has been a useful platform to deliver information.

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HEALTHCARE



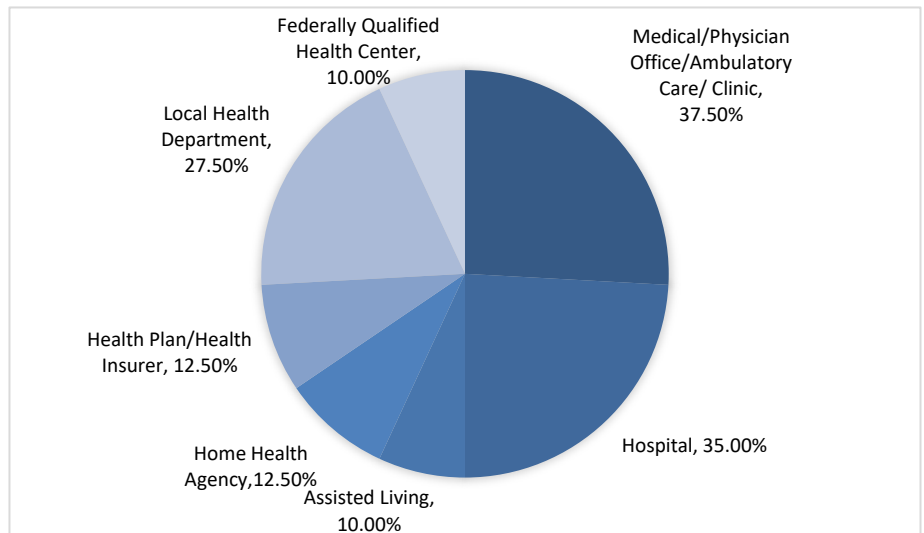
Demographics: Forty-nine respondents represented the healthcare sector by facility type indicated in Figure 4. The type of healthcare facility (managed/owned/leased) respondent's organization belonged to, included 38.1% (16) state/government, 33.33% (14) not-for-profit, 28.57% (12) healthcare system, 11.9% (5) independent, and 4.76% for profit (14).

Patterns of Technology Use: The general public, patients, and families are the top three audiences targeted to receive public health messaging using technology. The top three technologies used for messaging include website, social media, and e-mail, with health education, health promotion and prevention and healthcare reminders all the focus of messaging. Other types of technology used

include digital displays in waiting rooms, TV media, newsletters, and newspaper articles. Social media and webinars are used the most by local health departments, while patient portal is used the most in Medical/Physician Office/Ambulatory Care/Clinic. In addition, the leading health topic these technologies are used to address include physical activity and nutrition, tobacco, and cancer, with injury prevention, substance use, and oral health as the least addressed topics. Physical activity and nutrition are the leading health topics addressed the local health department and Medical/Physician Office/Ambulatory Care/Clinic. Oral health is not addressed by Assisted Living or Health Plan/Health Insurers, as well as injury prevention Health Plan/Health Insurers. Additional topics addressed include arthritis, maternal and child health, and general wellness.

Feasibility of Technology Use: The effectiveness of the technology used is measured through social media engagement, page views, followed by achievement of desired health outcomes, and referrals/enrollments to evidence-

based programs. However, a few indicated they do not measure or are not sure how it is measured. A communications team was primarily indicated as the person(s) assigned to deliver messaging, which is highest among Medical/Physician Office/Ambulatory Care/Clinic facilities, with about half who indicated an individual staff person and that no one is assigned. Other staff assigned include program staff or administration/HR/marketing staff. Staff roles in delivering



messaging includes developing content and posting it, followed by scheduling, with some that suggest content and approve content. Content for the messaging primarily determined in advance and content shared from other sources, with some content contributed by other organization staff and few that provide updates on the spt. In addition, Facebook, Google Drive, or Tweetdeck were indicated as tools used to manage delivery of messaging via social media, however many respondents did not know what is used.

Technology Used to Deliver PH Messaging

“As the marketing director, I spread the word. This survey made me aware, that maybe we should be addressing our clients via e-mail. Something we don’t do right now.”

-Healthcare Marketing Director

Barriers to using technology to deliver messaging is largely budget, followed by lack of staff training on technology and a lack of staff, with a lack of tools as the least barrier. However, health plan/health insurers do not see lack of staff training on technology or a lack of tools as barriers. In addition, internet access is not a perceived barrier to hospital, assisted living, and health plan/health insurers, while it is a barrier to the other facility types. Moreover, staff time,

organizational policy for technology use, access to priority populations due to language barriers and access to internet and/or computer, budget, as well as information overload were also indicated barriers.

Additional Information to Inform Technology Use for Public Health Messaging: A little less than half of respondents indicated reach and impact on populations, cancer prevention, access to priority populations, and message delivery due to language barriers as areas challenge to address. However, many healthcare entities have had success using technology to deliver messaging, such as use of Facebook messages for screenings in hospital and assisted living facilities, Text for Baby or WIC program messaging in a local health department, Breast Health Campaigns in Medical/Physician Office/Ambulatory Care/Clinic facilities, and use of UpToDate for patient education in FQHC’s. Moreover, while technology is used to deliver messaging, in-person education is often utilized in rural communities, as well as a unified message has helped with messaging. Organizational policy for technology use continues the challenge message delivery through social media between healthcare professionals and administrative policy.

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WORKSITE



Demographics: Sixteen respondents represented the worksite sector, which was the lowest response rate by sector for the survey. Respondents indicated the number of employees at their worksite included the following in Table 2. The industry respondents (n=14) represented 14.29% (2) Construction, 7.14% (1) Education, 14.29%, (2) Government, 42.86% (6) Manufacturing, and 14.29% (2) Non-profit Organization.

Table 1 - Employee Population

Employee Population	% (Number)
0-25	6.25% (1)
26-100	25% (4)
101-250	31.25% (5)
251-500	25% (4)
Over 500	12.5% (2)

Patterns of Technology Use: Worksite staff are largely the audiences targeted by the top three technologies utilized to deliver public health messaging, e-mail, website, and social media, with smartphone applications as one of the least utilized technologies. The focus of messaging of health education, health promotion and prevention, as well as healthcare reminders. The health topics addressed through messaging is largely physical activity and nutrition, injury prevention, and tobacco, with cancer and oral health the least addressed health topics. Other topics addressed indicated all topics related to wellness are addressed throughout the year.

Feasibility of Technology Use: The effectiveness of technology used to deliver messaging varies, with achieving desired health outcomes and social media engagement as the top two used, however worksites also use page view, response rate and referrals/enrollments in evidence-based programs as other effectiveness measures. However, some worksites do not have the ability to measure page views or do not use a measurement. Individual staff persons and a communications team deliver messaging, with human resources identified as other staff persons assigned to deliver messaging. Staff are tasked with posting, developing content, and scheduling delivery of messaging, with one site who evaluates messaging. Content is primarily shared from other sources, followed by determined in advance and contributed from other organization staff.

Effectiveness Measurement

"I can see how many people looked at my e-mails, but there is no measurement as to how the information is used."

-Worksite Staff

Worksites indicated they do not use tools to manage delivery of messaging via social media, however Facebook, and School Messenger was indicated by one worksite. Internet access was identified as the primary barrier to using technology to deliver messaging, followed by budget, and lack of tools (e.g. technology).

Additional Information to Inform Technology Use for Public Health Messaging: Half of respondents indicated no challenges with using technology to deliver messaging to address areas of chronic disease, while some indicate challenges with focusing on a specific disease, finding the right media and content to deliver, or having the ability to reach everyone and leave a positive impact. However, worksites have experienced successes using technology to deliver messaging, including distribution of event information, registration and participation for wellness screenings, Quit Tobacco Program, or staff weight loss using wellness tips received from internal e-mail system and participation on local fitness events. Technology is challenge for some worksites to use, however it is utilized when feasible.

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SCHOOL

Demographics: Twenty-eight respondents represented the school sector, including 60% (4) k-12, 16% (4) higher education, 12% (3) high school, 8% (2) elementary school and 4% (1) combined elementary and middle school. Within those respondents, their student population includes the following in Table 1.

Table 1 - Student Population

Student Population	% (Number)
Less than 250	28.00% (7)
250-249	24.00% (6)
500-749	12.00% (3)
1250-1499	4.00% (1)
2000 or more	32.00% (8)



Patterns of Technology Use: Students and families are the primary audiences targeted by the top three technologies utilized to

deliver messaging, e-mail, website, and social media, with smartphone application, podcasts, and discussion boards as the least used. Middle school and k-12 schools do not use smartphone applications. Specifically, families are heavily targeted for k-12 schools, but not at all for universities. Faculty and staff are additional audiences targeted, as well as student portals and an internal TV station are additional types of technology used. The focus of the messaging is primarily health education and health promotion and prevention. In addition, physical activity and nutrition, tobacco, and oral health are the top three health topic address through messaging, as well as immunizations in k-12 and drugs and alcohol and STD's in university facilities as other health topics addressed. Cancer and heart disease and stroke are the least addressed topics.

Feasibility of Technology Use: The effectiveness of technology used is measured through response rate, social media engagement, and achieving desired health outcomes, with reach not measured at all and some unsure if it is being measured and or not at all. Individual staff person(s) are responsible for delivering messaging, followed by a communications team and no one that is assigned. Wellness team and health and physical education teachers, as well as school counselor are other staff persons assigned to delivering messaging. Staff are primarily tasked with posting and developing content in delivering messaging, with scheduling the least assigned task, as well as other roles assigned include sending out training information and links to information. Content for messaging is developed in advance, followed by content shared from other sources and contributions by other organizations. Various methods are used to manage delivery of messaging via social media, including Facebook, text messages, websites and Connect 5 Messaging System, with half of respondent who indicate none are used. Barriers to using technology to deliver messaging are broad, with a lack of staff training on technology, budget, and internet access as the leading barriers, however lack of access to the intended audience and lack of information on what needs to be shared as other barrier identified.

Additional Information to Inform Technology Use

for Public Health Messaging: There are largely no areas of chronic disease that are challenging to address using technology to deliver messaging, however a few areas indicated that sharing photos of chronic disease are too graphic, and it is different to recommended place for information or treatment for specific diseases as there is no affiliation with a medical group. In addition, one respondent indicated that

diseases such as heart disease and diabetes do not apply to young children and parents are not interested in the information. Schools have had success with gaining people's attention regarding chronic disease, and getting the word out through social media, specifically Facebook on the reservation. Parents have also encouraged schools to continue to share health messages as they are unaware of current health trends. Additional insight to better understand school sectors' use of technology to deliver messaging include the use of a basic approach to deliver messaging through e-mail, text messages, and social media.

Chronic Disease Areas Not Addressed

"Specific topics such as diabetes, heart disease etc. do not apply to the masses of young children. Often parents are not interested in information that they perceive doesn't apply to them"

-School Staff

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TRIBAL



Demographics: Fourteen respondents represented the tribal sector and within those respondents, approximately 41% (5) serve more than one tribe of South Dakota's nine tribes. The following sectors are represented within the respondents; 25% (3) tribal sector, 25% (3) public health sector, 8.33% (1) non-profit sector, and 41.67% (12) other sectors, including recreation and culture and a combined representation of government, healthcare, worksite, public health, and non-profit.

Patterns of Technology Use: The general public, followed by families and students are the primary audiences targeted through the top three technology utilized, e-mail, social media, and

website, however face-to-face discussions are also often used in place technology due to poor internet and telephone access in tribal communities. The nonprofit sector also uses webinars to deliver messaging. Smartphone applications are not used at all across the tribal sectors. The primary focus of the messaging is health promotion and prevention, followed by health education, with healthcare reminders the least focus. A variety of chronic disease areas are addressed across all tribal sectors using technology, with tobacco, cancer, physical activity and nutrition, and chronic disease management as leading health topics addressed. Oral health and injury prevention are the least addressed topics across all tribal sectors, with the non-profit sector not addressing these topics at all.

Feasibility of Technology Use: The effectiveness of the technology used is measured through social media engagement, page views, and reach, however some are not measuring effectiveness at all or it is not applicable due to face-to-face discussions. Individual staff persons, followed by communications team, and volunteer(s) deliver messaging, and a few where no one is assigned. Non-profit sectors only use an individual person to deliver messaging. In addition, staff roles in delivering messaging include developing content and posting it, while one disseminates content to the newspaper and Talking Circles are facilitated during in-person community workshops. Moreover, content utilized to deliver messaging is primarily shared from other sources, followed by contributions from other organization staff and determined in advance. Tribal healthcare sectors do not use content contributed from other organization staff and the non-profit sector does not use content shared from other sources. Community needs also determined the content delivered. Facebook is primarily used to manage delivery of messaging via social media, however Youtube, Constant Contact, and LinkedIn are also used, as well as a few do not know what is used.

Technology Used to Deliver PH Messaging

"We don't use technology to deliver health education, but rather face-to-face discussion during home visits...not all of our clients use social media or even have telephones in their homes"

-Tribal Staff

Barriers to using technology to deliver messaging is primarily a lack of staff, however, internet access, lack of technology tools, as well as lack of staff training on technology was also indicated. Budget is barrier for healthcare and non-profit sectors, but not for the public health sector. Language barriers were least recognized barrier. Organizational technology use policies regarding social media use and access to telephone or computer, as well as lack of social media use are also barriers.

Additional Information to Inform Technology Use for Public Health Messaging: Some topic areas are challenging to address using technology, including STD's or substance use, as well as message that grab people's attention and motivate behavior change. However, many tribal organizations have had success using technology to deliver messaging, including using Facebook to promote a walk challenge and keep participants engaged, expanded network of resources and reach to people through social media. Moreover, Facebook has been successfully used to promote health education in the public health sector, while one organization does not have staff who delivers public health messaging, identified as a missed opportunity.